

*Washington
Park
Arboretum
Bulletin*

Published by
the Arboretum
Foundation

Fall 2000

\$5



The Washington Park Arboretum *Bulletin*
Published quarterly by the Arboretum Foundation
for the Washington Park Arboretum

— Washington Park Arboretum —

The Arboretum is a 230-acre living museum displaying internationally renowned collections of oaks, conifers, camellias, Japanese maples, hollies and a profusion of woody plants from the Pacific Northwest and around the world. Aesthetic enjoyment gracefully co-exists with science in this spectacular urban green space on the shores of Lake Washington. Visitors come to learn, explore, relax or reflect in Seattle's largest public garden.

The Washington Park Arboretum is managed cooperatively by the University of Washington and Seattle Parks and Recreation; the Arboretum Foundation is its major support organization.

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Open 10 AM—4 PM daily; Winter hours
(November 25–March 1): 10:30 AM—3:30 PM
Closed Thanksgiving, Christmas
and New Year's Day.

— The Arboretum Foundation —

The Arboretum Foundation is a nonprofit organization established in 1935 to ensure stewardship for the Washington Park Arboretum, and to provide horticultural leadership for the region. The Foundation provides funding and volunteer support for the maintenance, development and renovation of Arboretum gardens and collections and for educational programs. Volunteers operate the Gift Shop, conduct major fundraising events, and further their gardening knowledge through study groups and hands-on work in the greenhouse or grounds.

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**Fall 2000 Volume 62. Issue 3.
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ISSN 1046-8749.**

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ON THE COVER: Maples grow well in the Puget Sound region's maritime climate and provide spectacular fall color. Japanese maples (*Acer palmatum*) are numerous with good reason: They're beautiful in every season, slow-growing and disease resistant. The cultivar 'Hogyoku' is known for rich green foliage during spring and summer that turns a bright pumpkin orange in fall. A sturdy and hardy cultivar that grows 12- to 18-feet high in sun or part-shade, it looks best when regularly pruned and shaped. Enjoy the brilliant foliage of *Acer palmatum* 'Hogyoku' in the Arboretum at map grids 32-B and 34-3E, or stop by the information desk at the Graham Visitors Center for directions.

ABOVE: The Arboretum's *Quercus alba* var. *latiloba* (white oak) is native to the southeastern United States.



Fall in the Arboretum: the Acer palmatum (Japanese maple) collection.

MESSAGE FROM THE Executive Director

Watching the seasons change in the Arboretum helps us accept and grow from the changes in our organizations and lives. So it is with the resignation of long-time *Bulletin* editor, Jan Silver. After 12 years, Jan has decided to move forward with her career. We will remember Ms. Silver for taking a much more scientific “journal,” all in black and white, and over the years turning it into a colorful, user friendly horticulture magazine that is respected by Foundation members and professional colleagues across the country. The Foundation appreciates her work and commitment, and is proud of the high quality product she has edited for us. We wish her good luck with future endeavors.

Editorial board member Joan Hockaday has agreed to serve as chair of the editor search committee. Joan is familiar with the publishing business, having written a gardening book and, for many years, a gardening column for the *San Francisco Chronicle*. She and her committee are moving forward with their search. In the meantime, Regen Dennis was named interim editor of the *Bulletin*. Ms. Dennis has been the public relations consultant for the Foundation

for several years and stepped forward to help maintain continuity during the transition period. Both of these talented women are working hard to ensure that the *Bulletin* is—and will continue to be—a quality publication.

Fall is a great time for gardening in the Northwest. We tackle our gardens with gusto: cleaning, pruning, weeding, mulching and planting (bulbs from the Bulb Sale, of course!). This issue celebrates Fall in every way, and I believe you will enjoy the variety of useful information. Charming stories and planting ideas, the real dirt on fertilizing, and weeds everyone would love to destroy. I think you'll find, like I did, that it will inspire visions of getting out in your own garden with renewed enthusiasm. Fall truly is a spectacular season here in the Northwest. Pry yourself away from your own planting and tidying chores to take a walk through the Arboretum where you can savor its colorful show of fall leaves and once again appreciate this wonderful resource we have in the heart of Seattle. ∞

*Deborah Andrews, Executive Director
Arboretum Foundation*



John A. Wott, Ph. D.

*The brilliant leaves of **Oxydendrum arboreum** (sourwood or sorrel tree) will drop to reveal branching clusters of seed capsules that will turn light gray and last well into winter.*

IN THE ARBORETUM

Looking Back on Summer 2000

Conservation/Collections

Index Seminum is an international seed exchange program among arboreta and botanic gardens. Its volunteers have sent a seed lists to over 480 institutions worldwide. Our listing indicates a shift from collecting seed from within the Arboretum, where there is the possibility for hybridization, to collecting wild species native to the Pacific Northwest. Collections Manager Randall Hitchin is developing a medium-term seed banking facility,

and increasing numbers of new volunteers have begun training.

Angie Cahill, an urban horticulture undergraduate, spent the summer reviewing the conifers in Conifer Meadow and the Pinetum. We are now beginning some renovation projects, including the removal of some accessioned trees, the realignment of pathways, and the addition of new collection plants and signage.

After nearly four years of hard work, the Rhododendron Hybrid Bed was officially

dedicated in May by Arboretum staff, members of the Seattle, National, and International Rhododendron Societies, and the Arboretum Foundation.

Randall Hitchin participated in a field research project in Chile in January, along with faculty, students and staff from the Universities of Connecticut, North Carolina, Washington, and la Universidad de Magallas. Randall contributed to the floristics of the project, collecting seed, spore and herbarium specimens. We hope to see a number of new collection plants introduced into our collections.

Mattias and David Li, brothers and undergraduates at the University of Washington, participated in the project as research helpers under my tutelage.

The Arboretum staff is assisting in the Cherry Bark Tortrix research project, led by WSU's Dr. Lynell Tanigoshi. This new invading insect poses a serious threat to flowering cherry trees.

The Arboretum has benefited from the invasive weed removal efforts of several volunteer groups, including Americorps, Northwest Girlchoir, Temple Beth Am, and Seattle Works.

During the 1999-2000 planting season, 227 new accessions were added to the collections. The Curatorial Committee—Christina Pfeiffer, Randall Hitchin and Barbara Selemo[^]were instrumental in selecting and planning for the placement of these plants.

I participated in two workshops on strategic planning for the VanDusen Botanical Gardens in Vancouver, B.C., as it attempts to establish a vision for its future.

This spring, four graduate students in the Public Garden Masters Program at CUH studied several Puget Sound area public gardens and compared them to the Washington Park Arboretum. Under my guidance, they visited Lakewold (Lakewood); Van Dusen, University of British Columbia Botanical Garden, and Dr. Yat-sen Classical Garden (Vancouver, BC);

Rhododendron Species and Botanical Garden (Federal Way); Kruckeberg Botanical Garden (Seattle); and Bellevue Botanical Garden.

Education

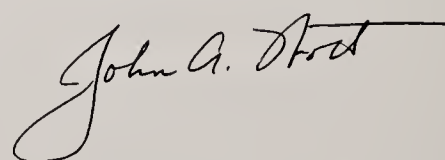
This spring the Saplings program really "sprouted." The addition of Monica Ravin (full time) and Becky Stanley (part time) helped us handle more than 1,700 kindergarten through sixth graders. Over 900 Seattle third graders completed the program, many for the first time, due to the support of the Alliance for Education. Another 850 children from other school districts attended. Feedback from the kids was great: "Our tour to the Arboretum was much more fun than our trip to the bom(b) factory yesterday." Staff will review our Saplings curriculum to meet the "EALR's" (Essential Academic Learning Requirements). We also are working closely with a National Science Foundation program being developed with the University of Washington and six area middle schools.

Mandy Matzke of Seattle University, fulfilled her service learning requirements working with the Saplings programs.

The Explorer Packs continue to be very popular. Many families have dropped by the Graham Visitors Center to check them out and spend quality family time in the Arboretum.

Christina Pfeiffer, Lou Stubecki, and David Zuckerman assisted in six UW field lab courses in the Arboretum. Our staff offers the best on-site advice to university students. We also led activities for the College of Forest Resources Alumni Association, CFR Arbor Day, and for Edmonds Community College.

Adult Education Coordinator Tom Smarr held several Pro-Hort Seminars in the Arboretum, for professionals in the landscape field. ~



*John A. Wott, Director
Washington Park Arboretum*

HORT 101

Test your horticultural vocabulary
with these terms used in this issue!

ALLELOPATHY, (ə-lē-lŏp' ə-thē, ăl'ē-),
noun

The release into the environment by a plant of a chemical substance that acts as a germination or growth inhibitor to another plant.

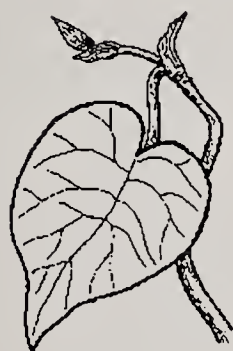
AXILLARY, (ăk'sə-lěr'ē), adjective

Borne in an axil, which is the interior angle where a small stem joins a larger one, or where a leaf stalk joins the stem.



CORDATE, (kŏr'dāt'), adjective

Having a heart-shaped outline.



ELAIOSOME, (ə-lī' ə sŏm), noun

An appendage on some seeds that contains oil attractive to ants. The ants remove the seeds, eat the appendage and effectively disperse the seed.

EMARGINATE, (ĭ-măr'jə-nĭt, -nāt'),
adjective

Having a shallow notch at the tip.



FASTIGIATE, (fă-stĭj'ē-ĭt), adjective

Having erect and almost parallel branches tapering toward the top, resulting in an erect and narrow canopy.

FLORISTICS, (flŏ-rĭs'tĭks, flŏ-) noun,
used with a sing. verb

The study of all the plant species that make up the vegetation of a given area.

STOMA, (stŏ'mə), noun. plural stomata

One of the minute pores in the epidermis of a leaf or stem through which gases and water vapor pass.

TRANSLOCATE, (trăns-lŏ'kāt', trănz-), verb

The physiological process of nutrients moving from one part of the plant to another.

TRANSPIRE, (trăn-spĭr') verb

To evaporate (water) from leaf and stem surfaces through the stomata of plant tissue.



Fond Fragrances of Fall

BY DANIEL J. HINKLEY

During my youth in small-town, middle America, autumn—like the other seasons—possessed its own set of fragrances that still remain powerful sensory links to my past: the earthy, crispy smoke of maple leaves that burned in organized piles along the streets; fermented, worm-ridden apples volatized by the last rays

of a waning sun; the pungent bite of football mums sold for homecoming. As our lives and directions change, so do these aromatic hallmarks of the seasons, yet remarkably, they are never forgotten and continue to transport us immediately upon a single detection of scent.

In the Washington Park Arboretum, in fact throughout gardens of the Puget Sound,

there exists our own subset of cues to the season at hand—and richer are those who have come to learn and appreciate the vernacular fragrances that our horticultural heritage can offer.

Favorite to many is the distinct aroma of *Cercidiphyllum japonicum*, the Katsura tree, native to Japan. The cordate leaves arranged in pairs along the stems are similar in appearance to the redbud, or genus *Cercis*, and transform to incredible tints of oranges, reds and yellows in mid-autumn. On warm days, even after the foliage has completely fallen, you can detect the sweetness of its dying leaves many yards away and what I could describe best as a combination of cinnamon and cotton candy. I have observed wild stands of this species on the northern tip of Honshu surrounding stunning Lake Towada, where the trees towered to over 100 feet in height.

Botanizing beneath this extraordinary overstory *was* extraordinary—not only for the opportunity to observe the associated flora beneath, including *Glaucidium palmatum* and *Cardiocrinum cordatum* in great abundance, but for finally encountering this fine autumnal fragrance in the Katsura's native haunts.

In fragrance as well as handsome, durable, evergreen foliage, several genera have evolved to delay their blossoming until months after the fray and frenzy of high spring. Both are highly adaptable to the Puget Sound region. *Osmanthus heterophyllus* carries spiny, black-green leaves, somewhat reminiscent of the English holly, along stems rising to 15' or slightly more. In late September through much of October, densely packed clusters of small white flowers, secreted away along the stems, open to emit a beguiling and most unexpected fragrance. This Japanese species has long been

◀ Savor the cinnamon and cotton candy scents of *Cercidiphyllum magnificum* in the parking lot of the Arboretum's Graham Visitors Center. ▼ *Cercis canadensis* (Eastern redbud), native to the eastern United States, grows well in the Northwest, offering fall color after the first frost.



cultivated in both its country of origin as well as in the West, and numerous cultivars can be encountered in local nurseries.

The foliage of *Osmanthus heterophyllus* 'Purpureus' emerges in spring with a purplish bruise, later fading to purple-green, while *O. heterophyllus* 'Variegatus' brandishes creamy-white emargined foliage that is truly striking throughout the year. The bamboo-leaved *Osmanthus*, *O. heterophyllus* 'Sasaba', is a fantastic, textural selection with the foliage deeply divided into three overlapping lobes. Though most of these selections would be considered an intelligent choice for a low maintenance hedge, a recently found pyramidal form, *O. heterophyllus* 'Fastigiata', would be ideal for cramped quarters where privacy is needed.

While in Japan in the autumn of 1995, I first made my acquaintance with *Osmanthus fragrans* in blossom throughout the gardens of Tokyo. The fragrance is sweet like that of Juicy Fruit gum, while the axillary clusters of flowers are white, or a pale orange in *O. fragrans* var. *aurantiaca*. I have cultivated this species successfully in my woodland garden where it benefits from the overhead protection of the Douglas firs.

The silverberry, *Elaeagnus pungens*, is another autumn blossoming, evergreen shrub that I would not be without in my garden. Quick to establish as well as tolerant of salt spray, the foliage and stems are coated with pewtery scales that offer a reflective quality quite unlike any other plant available for use in the greater Puget Sound. (The deciduous autumn and Russian olives also belong to the genus *Elaeagnus*, and though planted by the millions as windbreaks and wildlife cover, they are now considered problematic in regards to their invasiveness, and should be avoided.)

In early October, powerfully fragrant flowers are produced along the stems which result the following summer in red, silvery-splotched fruit. I took great pleasure in introducing this plant to my students during fall term while teaching plant identification at Edmonds Community College, delaying their initial meeting until it came into its delicious aroma on a perfect autumn day. Numerous variegated forms of *Elaeagnus pungens* are now locally available and add as much distinction in foliage to the mixed border or foundation bed as they do in an olfactorial

sense. We have to rely on the bright yellow-centered foliage of *E. pungens* 'Maculata' in our border devoted to blues for exceptional foil in the summer as well as structure in the winter months, though this has been superseded in the trade by *E. x ebbingei* 'Gilt Edge', with a bright yellow margin to its leaves.

The small, white flowers of *Camellia sinensis*, or the tea plant of commerce, begin to appear in late September and early October and continue for many weeks.

Though the fragrance of these flowers is not what I would consider heady, they do provide a good hit of perfume on a sunny day, and I think this durable, evergreen shrub is greatly underused in our gardens. In the same family, Theaceae, is *Eurya japonica* which is miles apart in appearance and odor. The small creamy white flowers open along the branches in axillary clusters in warm autumns, later resulting in striking crops of violet lavender fruit. (I have observed the fruiting effects of this species only in the wilds of South Korea.) Far from sweet, the odor is that of burnt rubber or a volatile gas. I will never forget having encountered this redolence from a similar species, *Eurya*

**"These aromatic
hallmarks continue
to transport us
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acuminata, while trekking in eastern Nepal in 1995. Before I realized from where the scent arose, I was certain that one of the gas cook stoves carried by our porters had sprung a leak. I did not say that all autumn fragrances needed to be pleasant.

To experience all that our surroundings can offer is to develop a lifelong repertoire of sensations that will transport us back to moments we have lived and enjoyed. This autumn, I encourage you to walk the

Arboretum in rain or sun, pause occasionally and take a good sniff. ☞

Dan Hinkley is co-founder of Heronswood Nursery in Kingston, WA, and currently serves as Director of the Heronswood Collection, owned by W. Atlee Burpee. He regularly travels abroad in search of new plants for American gardens, most recently in Northeastern Turkey and Southeastern Tibet. His latest book is The Explorer's Garden (Timber Press, 1999).



IN THE COLLECTION:

Arbutus unedo

Arbutus unedo, the strawberry tree, is native to Ireland and Southern Europe all the way to Asia Minor. Ordinarily grown in the Northwest as a large shrub, its glossy, evergreen leaves and striking, red-brown bark make it a standout in the garden all year round. The strawberry tree usually produces flowers at the same time that it's ripening fruit from the previous season's flowers, resulting in a showy profusion of white flowers, orange-red fruits and rich green foliage—all at once. The strawberry-like fruits are edible but tasteless. Grow in full sun, but protect in extreme cold. You can see several specimens of *Arbutus unedo* in the Arboretum, including the hedge that grows along the eastern border of the patio on the south side of the Graham Visitors Center. Find others at map grids 11-8E and 12-8E; specimens of *A. unedo* 'Rubra' are located at 10-2E, 20-3E and 21-3E. Visit the Graham Visitors Center for more information and to pick up a map. ☞



The Weeds I Love To Hate

BY SARAH REICHARD

Sometimes, even if you don't like something, you find yourself admiring some of its qualities, against your better judgment, against your common sense. For instance, I detest raw tomatoes (that yucky taste, noxious smell, and slimy texture!), but I think a deep red, ripe tomato, bursting with juice, is lovely to look at. I just would never eat one. I feel the same way about some weeds of the garden and of natural areas. I know the damage they do, competing with desirable species for water, nutrients, and light, and causing drastic changes in wild lands. But there are some species I also admire, sometimes for their beauty, but mostly for their tenacious will to survive and

spread despite the heavy arsenal of humans. Even as I battle them, in some secret part of me I also delight in their fight for life. What follows is not a recipe for how to kill the species, but a description of what makes them at once horrible and wonderful, these Dr. Jekylls and Mr. Hydes of the landscape (but mostly Mr. Hydes!).

What's the story, morning glory?

A morning glory should be graciously twining over a garden gate, sharing its purple flowered glory. The version we commonly have here is anything but glorious! Plain white flowers adorn a vine that seems to grow by the minute. The South may have Kudzu, but



◀ *The delicate leaves and pretty pink flowers of *Geranium robertianum* ("Stinky Bob") disguise its deleterious effect on native plants.*

▲ *Beware: The striking purple spikes of *Verbena bonariensis* can take over your garden!*

we have *Convolvulus sepium*, a vine that covers my rose bush if I leave town for a weekend! One of its other common names, hedge bindweed, seems much more appropriate—it grows over shrubs and chokes the very life out of them! This plant invokes feelings of hate and respect. For the last few years, North Seattle resident Anya Levy-Smith volunteered on a restoration project that was covered with bindweed. After losing the battle for months, Anya did not admit defeat, but decided to go to graduate school to undertake research on how to kill this many-headed beast. We wish her well! Still when I am digging those snaky white roots, carefully following them for yards and yards, I feel a certain thrill when I realize

the amount of energy this species devotes to outfoxing us by developing such extensive, and yet easily broken (and regenerated) roots. I have been digging it out of my yard for 15 years and still it persists. Now that is a plant I can hate (but admire)!

Oh Bob!

The dignified name is herb Robert, but to those of us who know it well, *Geranium robertianum* is commonly called "stinky Bob." No Robert for us! As to the stinky part, well, sniff a stem to reveal eau de rancid peanut butter. This is a species I do research on, so I am on a first name basis with it—when I go out to work on it, I am "going to visit Bob" or, for short, "goin' Bobbin'." Visitors to the Arboretum know it well as the delicately leaved plant with the simple, pretty pink flowers. Its behavior is hardly delicate, however. It grows in open areas and densely shaded forests, at sea level and in the mountains, and where it grows, few other species are found. Sierra Hansen and I have been exploring the reasons why and we have found that as increasing amounts of dried "Bob" leaf are incorporated into the soil, seeds of native species germinate less frequently. Apparently the leaves are poisoning the surrounding soil, a process called allelopathy, and at least temporarily preventing native species from germinating.

Clearly, this is not a nice plant. What I find to love about this species is one of the things that makes it such a hard weed to control: its seed dispersal system. It produces five neat little seeds at the base of an elongated receptacle, with sticky strings running the length of the receptacle. When the sun is out and the receptacle dries, the seeds are ejected forcibly along the receptacle, which acts like a missile launcher. The seed goes shooting off for several yards, then it sticks to leaves, people, and whatever else, by the sticky strings. Look at the underside of a vine maple leaf in a stinky Bob patch in late summer and you will find

seeds hanging like little Christmas ornaments, waiting for a person to brush by or a rain to wash them off. Devilishly efficient!

An old broom keeps on sweeping those prairies clean of natives

For a few weeks out of the year, I do not hate Scot's broom (*Cytisus scoparius*). Even though I know what this monster does to our precious few remaining Puget Sound prairie systems, when it bursts forth its golden yellow flowers in late spring it brightens up our rainy days. I delight in playing bumblebee, springing open the boat-shaped fused lower petals so that the stamens pop out. I can tell myself that I am doing important work for conservation by preventing the pollen from being spread to the pistil of another flower, creating more seeds, but mostly I just think it is fun. Then, the flowering over, I go back to hating this species. Scot's broom is a "nitrogen fixer." Through a relationship with bacteria found in root nodules, it can change atmospheric nitrogen into a form useable by plants. Some of this nitrogen is leached into the surrounding soil, increasing the fertility of the soil. Now, to most gardeners that does not sound like a bad thing, but to a native prairie species, adapted to the nitrogen-poor soils found in prairies, it can mean that other non-native species can easily establish and out-compete them. Scot's broom has pea pods (it is in the legume family) that eject the seeds through the air, coming to rest on the soil, often only to be found by ants who drag it into their nest to harvest the oily patch (called an elaiosome) found on the seed.

Reed canary grass does not sing for me!

The debate rages among the conservation community in Washington as to whether *Phalaris arundinacea* is native or non-native.

**"At once horrible
and wonderful,
these are the
Dr. Jekylls and
Mr. Hydes of
the landscape."**



It likely is a wide ranging species that has both native and non-native genotypes that were introduced into wet pastures for cattle forage. The seeds germinate almost immediately but plants also spread by rhizomes so quickly and completely it is one of the few species that nearly always needs to be controlled by herbicides. This is a tall growing grass with flower spikes that sway in the wind

and is actually pretty lovely, if you don't think about what it does. It has also been used effectively for forage and erosion control. These positive attributes notwithstanding, reed canary grass can quickly overcome a stream-side or wetland (and even some drier areas) and, once there, will always be there.

What Verb-ena can do expresses action

A few years ago I saw this nifty plant at my favorite nursery. It was gawky, tall, skinny, and not much to look at, except that it had these clusters of bright purple flowers at the top. In fact, the common name is purple top. It was just the thing to mix into my perennial border! For a couple of years, *Verbena bonariensis* performed like a trooper. Oh, sure, there were a few seedlings here and there, but who doesn't like a few more of a favored plant? Then there were a few more, then more, then I found it coming up in the sand between the brick walk in an un-irrigated part of my yard. That is when I decided to pull the plug and rip out every purple top plant I could find. Turns out, however, that this species has tiny seeds that are spread throughout the garden and live a lot longer than you want them to. It has been three years and I am still pulling seedlings. Soon, I started realizing that quite a few other people had succumbed to its purple charms and it was spreading in their yards, too. Then, on a trip to Australia, I saw it

covering roadsides and grassy areas in dense thickets. Alarm bells! I managed to persuade Dan Hinkley of Heronswood Nursery—an avowed *Verbena bonariensis* lover—to remove it from his catalog last year. Not an easy task. Dan recently told me that it is spreading with a vengeance all over his fields and in his lovely woodland nursery. Because Dan is a friend, I have refrained from saying “I told you so!” to him, but I will whisper it here.

***If only water hyacinth
behaved like its land cousin!***

Just to show you how deceptive common names can be, water hyacinth (*Eichhornia crassipes*) is absolutely no relation to the fragrant flower that graces our gardens in the spring. Instead, it is an aquatic plant that floats on the surface of the water by nifty swollen air-filled petioles. It does have pretty lavender flowers, but that is where the resemblance to our familiar hyacinth ends. Water hyacinth spreads vegetatively very quickly and completely chokes out waterways. LeRoy Holm, noted weed specialist, has described this species as the “worst weed in the world” and that is really a strong statement, coming from him. While water hyacinth appears to be a problem only in warmer climates, it worries me that it is sold so much in the Northwest as an inexpensive pond plant. While it probably can’t overwinter in our cold climate, its seeds likely can. Even if a patch doesn’t

persist from year to year, it grows quickly enough that it could cover a pretty fair part of a pond or lake in one season.

The truth is, most of these plants have been brought here because they DO have desirable traits that make them ornamental or useful in some way. There are many, many more weedy species that have admirable traits, either because they are beautiful or because they are survivors. There is English ivy, purple looses-trife, butterfly bush, cotoneasters; the list could go on and on. Most of the plants we humans introduce perform the beneficial activity we intend and do not have negative qualities. In fact, many of the things we consider to be negative traits are desirable under other circumstances: We hate the way reed canary grass spreads by rhizomes in wetlands, but those who use it for erosion control think that is wonderful. There will always be plant species that have a Jekyll-Hyde complex. However, let’s keep our admiration for them in balance with our understanding of how they harm other species in our gardens and wild lands. It will be our guilty secret. ♪

Sarah Reichard is a conservation biologist who specializes in invasion biology. She works at the University of Washington’s Ecosystem Science Division at the Center for Urban Horticulture, and serves on the US Federal Invasive Species Advisory Committee.

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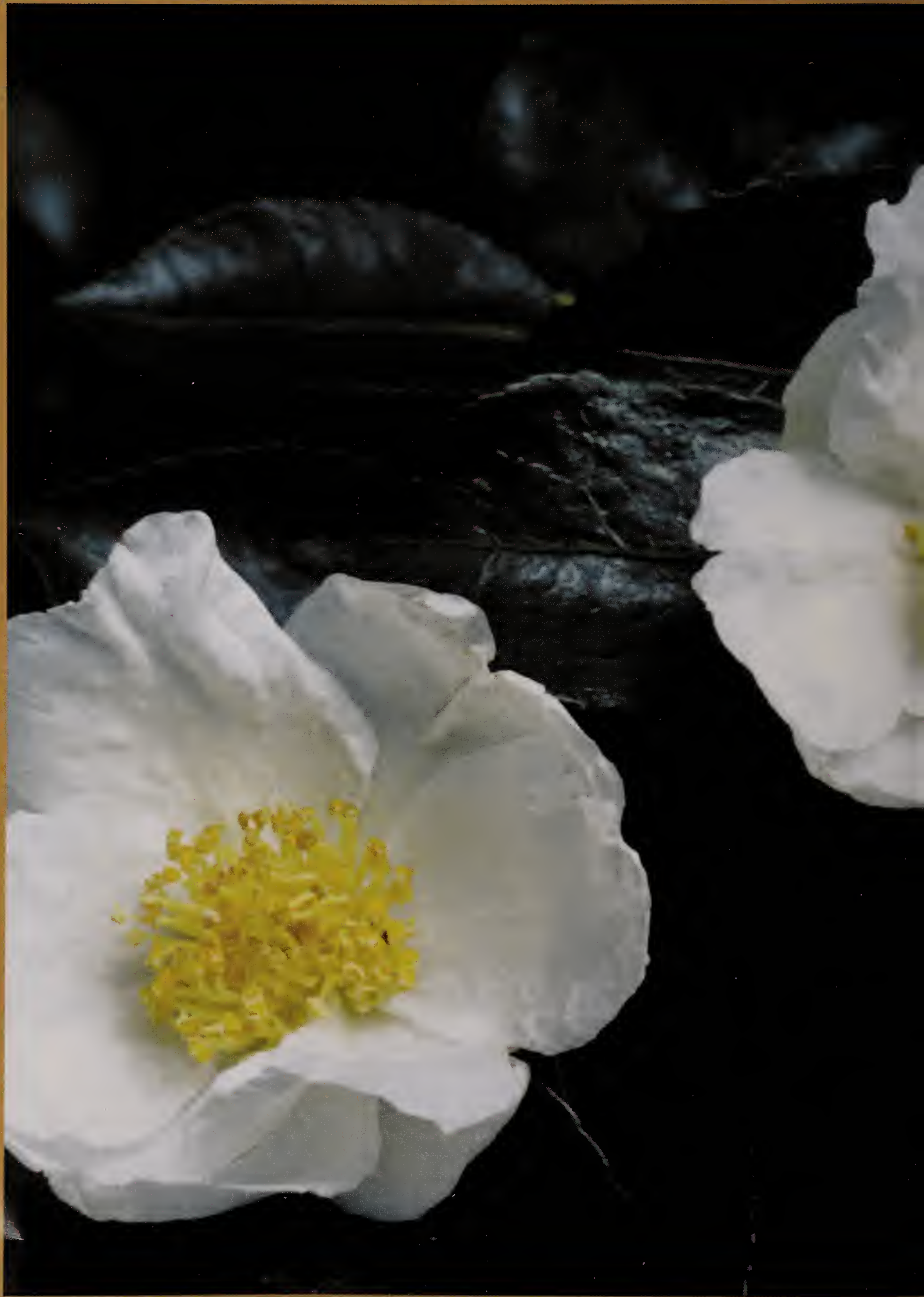
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Skinny Plants FOR Skinny Places

BY CASS TURNBULL

I am frequently confronted with the challenge of a client's skinny bed between the house and the concrete walkway just two feet away. At other times, I puzzle over that narrow strip on top of the rockery, below a fence. Or the fenced side-yard located just outside the bedroom window. And then there's the problem of what to do about the neighbor's chain link fence; or how to hide that Goliath remodel, replete with balcony overlooking what used to be your backyard sanctuary. To resolve these common design problems, I've developed the Skinny Plant List.

Don't ever expect that plants can be pruned to accommodate the space available. Plants pruned for size control will simply redouble their efforts to grow and quickly will cease to look "right." An exception would be those species that have proven themselves suitable for espalier.

Front entryway

Probably the hardest place to plant is the front entryway because it is frequently bordered on all three sides by porch, house

◀ *Camellia sasanqua 'Tago-no-tsuki', native to Japan, is an excellent candidate for espaliering in a narrow bed.*

and walkway. The plant situated here cannot grow out in any direction, and probably shouldn't grow up to obscure the window. Of course, this plant is the first thing guests see and therefore must look presentable in all seasons. The rhododendron is the most ill-suited, yet all too frequently planted in this high profile space.

Thank heaven for heavenly bamboo (*Nandina domestica*). It fills this bill nicely and comes with its own cute story: In Japanese tradition, the male of the household comes home and tells his troubles to the *Nandina* instead of going inside to take things out on his wife. This creates domestic (*domestica*)

tranquillity. *Nandina*, unlike real bamboo, is not invasive and if it gets too tall or leggy, it takes pruning well.

Tall, lean, evergreen screen

To block the unwanted view of the neighbor's house, a fast growing screen is a good solution—but you don't want to deed half the yard over to some towering green fatty, or plant something that needs constant pruning. The laurels—English and Portuguese (*Prunus laurocerasus* and *P. lusitanica*)—and photinia have been the bane of maintenance gardeners for decades because of their perpetual shearing needs, and their overuse

PLANTS TO ESPALIER

Apples or pears

Camellia japonica

Camellia sasanqua

Chaenomeles spp. and cvs. (Quince)

Cotoneaster horizontalis (Rockspray Cotoneaster)

Pyracantha coccinea (Firethorn)

PLANTS TO COVER WALLS OR SOLID FENCES

Cedrus atlantica 'Pendula Glauca' (Weeping Blue Atlas Cedar)

Hydrangea anomala ssp. *petiolaris* (Climbing Hydrangea)

Parthenocissus quinquefolia (Virginia Creeper)

Parthenocissus tricuspidata (Boston Ivy)

PLANTS TO COVER CHAIN LINK FENCES

Cedrus atlantica 'Pendula Glauca' (Weeping Blue Atlas Cedar)

Clematis spp. and cvs.

Vitis spp. (Grape Vine)

Wisteria spp. and cvs.

PLANTS FOR NARROW SPACES

Azaleas, deciduous

Bambusa oldhamii (Timber Bamboo)

Calocedrus decurrens (Incense Cedar)

Chamaecyparis nootkatensis (Alaska Weeping or not-so-weeping Cedars)

Eucryphia spp.

Mahonia aquifolium (Oregon Grape)

Mahonia bealei (Leatherleaf Mahonia)

Nandina domestica 'Compacta' & not-so-compacta (Heavenly Bamboo)

Thuja occidentalis 'Pyramidalis' (American Arborvitae)

PLANTS THAT ARE SHORT BUT SKINNY ENOUGH

Azalea, evergreen

Leucothoe fontanesiana, drooping (Dog Hobble)

Polystichum munitum (Sword Fern)

Sarcococca spp.

FOR MASS PLANTING IN NARROW BEDS

Acanthus spp.

Chrysanthemum maximum (Dwarf Shasta Daisy)

Hemerocallis (Daylily)

Hosta spp.

Iris spp.

Saxifraga umbrosa (London Pride)

has caused them to be widely regarded as rather déclassé.

The slower growing, finer leaved hedge plants, boxwood and yew, are preferable, but take longer to reach the desired height. I think the best species for a zero-maintenance, fairly fast growing, 20-foot evergreen hedge is *Thuja occidentalis* 'Pyramidalis', often disdained for its commonness. Other fastigate (skinny) conifers have been recently introduced for those who want something out of the ordinary. But you can't beat *T. occidentalis* 'Pyramidalis': It does exactly the job it was hired to do—and does it well. Use three plants of different heights in an informal grouping to block a specific unwanted view. Also in this species is the cultivar 'Emerald Green', the variety that doesn't turn brownish in the winter.

The newest hedge material invented to terrorize future generations of maintenance gardeners is the Leyland cypress (x *Cupressocyparis leylandii*). Leylands grow fast to 125 feet! The *Sunset Western Garden Book* says they can grow from a cutting to 20 feet in five years, but they won't stop there. They have to be pruned, in fact sheared all over, not just at the top, every year, forever! Unlike laurel or photinia hedges, if a Leyland hedge gets away from you, it's gone for good. As with most conifer hedges, you cannot cut deeply into the barren branches because they will not green back up. At least laurel and photinia (and holly) can be radically renovated, or reversed in size, chain sawing them back to as little as one third their size. Leylands, on the other hand, go only one way and that way is bigger. I once complained to a colleague that keeping Leylands as hedges would be like trying to keep an elephant in a pig pen, to which she replied, "You mean like trying to keep an elephant in a gerbil cage!"

Leyland cypress is popular because it provides a tall screen and looks elegant due to its fine needles. Two other conifers used for formal hedges, hemlock (*Tsuga*) and blue

Atlas cedar (*Cedrus atlantica* 'Glauca'), look as nice or nicer than Leylands, but only the extremely vigilant and wealthy can afford to use conifer trees as hedges since you can't ever miss a year of shearing. That sort of annual maintenance can become expensive. The one perfectly maintained, sheared-to-30-foot Leyland cypress hedge I have seen had all the horticultural charm of a green drive-in movie screen. Asked what to do with it, I could only offer adding a climbing rose for some seasonal interest.

Instead of Leylands, try a grouping of Alaska yellow cedars (*Chamaecyparis nootkatensis*). They grow fast to 40 or more feet and can be pruned to a free-standing espalier. Or consider a fastigate deciduous tree whose winter branches provide a kind of "beaded curtain" that lets some winter sun and rain into your garden.

The walkway

In the space between the house and the walkway, height may not be needed or wanted. Azaleas are overly maligned, given their usefulness in the landscape. Many are evergreen, have nice flowers, can be scented and may even have tinted fall foliage. They stay relatively small and if needed, can be pruned or even radically renovated. In the shady spot, *Sarcococca* is just the ticket: sweetly scented, tidy, evergreen and with nothing much in the way of pests or disease. Evergreen ferns are also good—our native sword fern is one of the few perennial plants that can take dry shade once established.

If you can afford to do a perennial deciduous mass planting, consider stretches of bear's breech, daylily, bearded iris or hosta. In narrow beds, observe the "rules": Use only one specimen for every foot of bed width.

Fences and walls

Put a lattice or a trellis along the top of a fence to train vines or climbing roses. Nothing is quite so wonderfully evocative as

a climbing rose spilling over a fence. Chain link presents special problems. A friend inherited 30 feet of ugly chain link fence covered with well-trained and beautiful wisteria. She attached sturdy and attractive wood posts to cover the metal ones, drawing the eye away from the chain link itself. The wisteria covers the posts as well as meandering throughout the fence. Clever girl.

The cheapest and most immediate solution for a chain link fence is to thread it with slats. Cheap lath is best; the expensive kind won't slide through the links. The lath will eventually break out in bits and pieces, but by then the plants will have covered it nicely.

A climbing hydrangea (*Hydrangea anomala* ssp. *petiolaris*) is a good choice to

cover a solid fence or wall. Although slow to establish, it can cover a wall or fence nicely without ever becoming a nuisance, unlike wisteria that relentlessly climbs, strangles and smothers all nearby shrubs and trees. This deciduous *Hydrangea* is fairly tidy looking in the winter, unlike clematis which often looks like something you clean out of the drain. Its flowers are lacy and white, perfect for those who like understated elegance, and who doesn't?

If you have 2,500 square feet of concrete or stucco wall, God created Boston ivy (*Parthenocissus tricuspidata*) and Virginia creeper (*P. quinquefolia*). Their fiery fall color is wonderful and the winter tracery of vines is beautiful.

A medium-sized wall in the hot sun with limited water might be just the place for *Cotoneaster horizontalis*, espaliering itself in great arching sweeps that turn red with berries and need no pruning. If you like to prune, traditional espalier plants will work: fruit trees, quince, pyracantha, camellia.

Non-plant solutions

What to do with those flat walls or skinny spaces between the house and the walkway that are under the eaves, getting no rainwater? Face it, you're not going to irrigate in a Seattle winter. Try stone or river rock—or you might plant *Sedum* and *Sempervivum*.

I have often stared at 20 feet of fence asking what to plant: yes trees, yes shrubs, yes vines. But more and more I conclude that an all-season focal point—garden art—would help the picture immensely. Enjoy it in all seasons without pruning or watering, and it's a great counterpoint and constant companion for your skinny plants. ♪

Cass Turnbull is founder and Executive Director of Plant Amnesty. Her books, lectures and activism benefit trees and woody plants throughout the United States. Contact Cass at 206-783-9813.

The theme of the 1996-97 Signature Bed, presented by Arboretum Foundation Unit 96, was "Cultivating the Straight & Narrow." Designers Kate Farley and Lisa Hummell accentuated the challenge of a long, narrow bed with trees, shrubs and a trellis that divided and subdivided the space. Structure plantings included *Fagus sylvatica* 'Dawyck', *Prunus laurocerasus* 'Otto Luyken', *Taxus* 'H.M. Eddie', *Lonicera nitida* 'Silver Beauty', *Miscanthus sinensis* 'Cosmopolitan', *Hedera canariensis*, and *Clematis viticella* 'Alba Luxuriens'. According to Arboretum Horticulturist Christina Pfeiffer, "This was one of the prettiest and most functional displays we have ever put together."





A GOURMET GUIDE TO MANURES

BY JAMES "CISCOE" MORRIS

Increasing numbers of the Northwest's best gardeners are risking marriage and neighborhood friendships by applying fresh manure in the home garden. They are willing to take the plunge because the rewards gained by using this old and time-tested gardening technique are numerous. Applied as mulch during the late winter through early spring, fresh manure can provide all of the nutrients needed for most plants for the entire growing season. In addition, using fresh manure as mulch can help improve soil structure and slow the evaporation of water from the soil. Best of all, plants growing in soil fed with manure generally grow bigger, healthier and produce copious amounts of beautiful flowers.

Before you dive into the delight of doing 'doo,' it's important to realize that all manures are not equal. Each of the pungent delicacies has a number of qualities and drawbacks that must be considered.

First of all, we are talking the real thing here. Those bagged, ultra-composted manures that have been deodorized, sanitized and neutralized have little to offer your plants in the way of nutrition. Everything in life has a cost. If you can't smell it, your plants won't thrive on it. There is nothing wrong with using the ultra-composted products. These treated manures still can be incorporated into the soil to add structure, or used as mulch to slow evaporation. You won't have your neighbors

screaming obscenities over the fence, but don't expect the processed stuff to give you the big, beautiful plants that fresh manure will.

Most fresh animal manures can be used in one form or another in the garden. The exception is manure from animals that eat meat. Dog and cat feces can carry human disease organisms and should never be used in the garden in any way.

Most of the best gardeners consider washed cow to be the 'coup de grâce' of the fresh manures. Washed cow manure is what remains after the dairy farmer hoses the manure out of the dairy barn and then drains off the liquid. The farmer uses the liquid to fertilize his or her fields, but the bulky stuff that is left must be disposed of. Fortunately for us, most farmers are more than happy to sell it cheap, or give it away. Some dairies such as Smith Brothers, even offer reasonably priced deliveries.

Gourmet gardeners covet washed cow manure. Not only does it help produce big, healthy, floriferous plants, it rarely causes the burning problems often associated with using fresh manure. That's because the urine, high in salts and minerals, has been drained away. Washed cow is mild enough that as long as it is used when the weather is cool, it can be spread three-inches thick, right over the crowns of most perennials and within a few inches of the base of trees, shrubs and roses. The only perennials I've ever seen harmed and shouldn't be covered by manure are peonies, astilbes, hellebores and dahlias. All other types of perennials thrive on fresh manure. Despite its gentle manner, washed cow manure is potent stuff. Generally, one spring application will provide all of the nutrients needed by most perennials, trees and shrubs (even roses) for a whole season. Another big plus, washed cow manure usually is not all that weedy. The fields that dairy

cows feed in tend to be fairly clean. Even if they do eat weeds, cows have multiple stomachs from which they pass the food back and forth, grinding up most of the weed seeds in the digestion process. Of course there is the obvious downside to using fresh cow: 'Eau de Elsie' can get you into trouble. There is no getting around the fact that you are risking marriage and neighborhood relations when you use fresh washed cow manure in your garden.

There are, of course, many other manures available, each sporting a variety of qualities. Fresh horse manure is highly nutritious and capable of providing needed organic

materials to the garden. The problem is that horses often feed in weedy fields. They have only one stomach and do a very poor job of breaking down seeds. The trick is to find a stable where rich folks keep their horses. Horses with the good life, generally leave the stable

only to be ridden, and spend most of their time hanging out in the barn eating nutrient-rich alfalfa. Stable mulch can be used in most any weather as long as it is left out in the weather for about a month to allow the urine to leach out. At Seattle University, I experienced first-hand the damage that hot stable mulch can cause. A couple of inexperienced gardeners accidentally collected the steamy-stuff from the wrong end of the pile, and applied it in front of the Administration Building on an 86-degree day. The charred remains of rhododendrons, azaleas and perennials were the least of my problems. The essence of Iowa was noticeable blocks away, the side of the building was covered with flies, and I had to convince quite a number of upset administrators that I was not making a social commentary!

Chicken is for those who 'like it hot'! It is loaded with salts and minerals that can burn plants unless it is used with extreme care.



Second only to pig, (which I won't touch with a ten-foot pole) it is some of the stinkiest stuff you can imagine. Well-composted chicken makes a relatively fertile mulch, but used straight, fresh chicken manure is generally too hot for most plants. One of the best ways to use fresh chicken manure is to make manure tea. Leave a burlap bag full of droppings in a tub of water for about two weeks, until the water is a rich dark brown. Remove the sack and dilute the tea with equal parts water. I use chicken manure tea as a booster shot as needed for vegetables, perennials and roses during the growing season. I don't recommend using fresh chicken manure as mulch. You are likely to burn plants and you might just get manured and feathered by your friendly neighborhood vigilante committee.

Fresh sheep and goat manures have some limitations as well. I'll never forget as a kid when my father brought home a truckload of fresh sheep manure. Dad never got his hands dirty. Rather he saw his role as advisor to Mom and me. We had our doubts about using fresh sheep, but Dad assured us that we would have the biggest plants we'd ever grown. He was right. If you could find the veggies and flowers under the 15-foot tall weeds, they really were bigger than usual. I wouldn't touch sheep manure unless it has been thoroughly composted for about a year, and even then I would be fearful of the weeds that might occur.

In my opinion, rabbit manure is the *crème de la crème*. This year I got a rather unusual surprise at one of my garden talks when a nice woman presented me with a bucket overflowing with fresh, fragrant bunny quapa. I would have appreciated it more had my new car been over a week old! The drive home was an unforgettable experience. Suffice it to say, the new car smell was gone forever. However, the bonanza that has resulted from

incorporating bunny poop into my perennial and vegetable gardens is truly remarkable. In late winter, rather than use it as mulch, I incorporated several two-inch chunks of the fresh pellets into the soil around various plants. The results have been remarkable. I now have delphiniums over 12-feet tall that have been blooming for months. My rhubarb got so big, I had to extend the vegetable garden to make room for Brussels sprouts! Roses have grown big and stocky, and are blooming as if there is no tomorrow. The garden is so lush I have to issue malaria pills to visitors. The problem with rabbit is where to find more. Make good friends with any neighbor who has a bunny. I got in trouble the other night when I got caught raiding my neighbor's pile.

For those of you who would prefer using manure from the bag, ZooDoo from Woodland Park Zoo is a wonderful product. Usually it has been somewhat composted, but it is high enough in nutrients that it can be used effectively as a cool season mulch. Call early when it is offered, it always goes fast.

Despite the pitfalls, I strongly recommend using fresh manure in your garden next spring. Be aware that it will be a bit difficult to get your family and neighbors to share your enthusiasm. Stock up on wine (gifts for the neighbors), hire a good lawyer (just in case), bring home lots of rose bouquets (hopefully, the house will smell better too) and reserve plenty of appointments with the marriage counselor. The smell will be really bad for only a few days, and when you see what fresh manure does for your plants, you'll know it was worth it! ~

James "Ciscoe" Morris is the Horticulturist at Seattle University. He produces and hosts a popular Saturday morning gardening program on KIRO radio.





HANDS-ON HORT

Hardwood Cuttings

BY BARBARA SELEMON

As the last days of summer and early days of fall bring on cooler night temperatures and shortened daytime hours, plants prepare for the approaching winter season by translocating carbohydrates downward for storage in their root systems. Plant stems are “hardening” at this stage to withstand the harsher season, the demand of photosynthesis is shrinking and transpiration rates are slowing down. However,

carbon, a necessary element in root initiation, is still being produced in the leaf system, making September through mid-November the best time for taking semi-hardwood cuttings of most broad-leaved plants and some conifers.

Why take cuttings?

In order to reproduce an exact copy of a plant, you must propagate the plant asexually, or not from seed. The simplest form of this

◀ *Berberis (barberry) can be easily propagated by taking semi-hardwood cuttings. Pictured here is Berberis x lologensis, a native of Argentina. ▼ The broadly-spreading growth habit of Berberis x gladwynensis ‘W. Penn’ makes it effective as a low hedge.*





▲ Take semi-hardwood cuttings of *Vaccinium ovatum*, the native evergreen huckleberry, to highlight next year's woodland garden. Lustrous dark green leaves frame edible berries—if the birds don't get to them first.

propagation for the home gardener is vegetative cuttings. Semi-hardwood cuttings collected in the fall may be the easiest types of cuttings for the hobbyist since the environmental requirements are not as great as with softwood cuttings that are taken in the summer months.

Choosing a parent

If you can choose which plant you wish to be the parent, do consider its health and vigor. A plant that has produced many new shoots, is free of disease and insect damage and has been fertilized and grown in good soil conditions makes an ideal candidate. Once you select a parent, take cuttings from the most juvenile area, or from the lower third of

the plant. Some plants have noticeably different juvenile foliage versus mature (or flower-producing stage), such as *Eucalyptus* spp.; however, almost all plants reproduce better from vegetative cuttings taken from the lower part of the plant.

Creating the environment

Cuttings root in an environment that has light, moisture and warm temperatures. The degree to which any of these environmental factors is needed depends upon the time of year you take vegetative cuttings.

During September and October, day temperatures may vary greatly, although average temperatures are cool and are not

forcing the plant to transpire at a fast rate. Therefore, constant mist is not a necessity. Light may be intense, due to the sun's angle, but the hours of daylight are now fewer than 12 per day. In general, cuttings perform better under 50 percent shade from direct light. Maintain a high humidity environment by placing a plastic covering over a box, supported overtop by a wire cage. Place this container over a bed of gravel that is kept moist, providing moisture evenly to the soil bed. The temperatures at this time of year do not require the addition of bottom heat underneath the container, although the lower the soil temperature, the slower the rate of rooting. Before night temperatures fall below 40 degrees F, place cuttings outside in a protected site away from direct sunlight and rain. Once the threat of freezing temperatures exists, move them inside. You can supply supplemental bottom heat in an unheated area.

Sticking cuttings

Stem cuttings should be cut down to 4-6" in length, have a diameter about that of a pencil and include two sets of nodes from which the new leaves will emerge and sustain growth. Large-leaved plants, such as some of the rhododendrons, benefit from having their leaves cut back to one-third of their original size, to lower water loss. Use plant hormones, either liquid compounds or talc formulations containing IBA (indole-3-butyric acid) with semi-hardwood cuttings. Rates vary according to specific plant species, so read the product label for

guidance. Once you've trimmed the cuttings and applied hormones, the cuttings are ready for "sticking" into the soil medium. Tamp the soil in the container to eliminate large air pockets where water can pool, and shrink the soil level. Using a kitchen knife or some other thin, stick-like instrument, make a hole where you will drop in the cutting so that it is buried to half its total length beneath the soil surface. Firm up the soil around the cutting so that it is well supported, and monitor it twice a week for even moisture.

The "tug test"

A common question of novice propagators is "when do I know the cuttings have rooted?" Good signs to look for are bud break and new growth. Once either of these has occurred, try a tug test—simply pull on the cutting to feel if there is any resistance. Cuttings which have

rooted will not budge, while ones that have not rooted (or not significantly) will pull up. If you determine that the cutting has not yet put on roots, re-firm the soil around the cutting and leave it in place. Most cuttings take at least two months from the time of sticking until root formation. Semi-hardwood cuttings may take longer still, since the soil temperature is kept cool, unless bottom heat has been supplied.

Transplanting

Often propagators have success rooting a special plant only to lose it again after transplanting it to a new container. Several factors may contribute to the success or loss of a new cutting, but here are a few

Propagation structures for the hobbyist:

- ~ Styrofoam picnic box covered with either plastic or glass
- ~ Old refrigerator crisper with lid
- ~ Plastic sweater box
- ~ 4" rectangular box with wire support, covered with plastic

Soil medium characteristics

Select a soil-less medium for your cuttings:

An ideal medium is one which:

- ~ is firm enough to provide good support to the cutting
- ~ holds its volume (does not shrink around the edges)
- ~ holds moisture well
- ~ drains well (has good pore space)
- ~ is weed and pathogen free
- ~ has a low salinity value
- ~ can easily be sterilized



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basics. Plant your cuttings in individual containers to begin with, in order to avoid the transplanting step. Practice patience in potting up a new plant. Many losses occur due to potting up at too early a stage and breaking the brittle roots.

Although the plant may have a small root system when first monitored; a well-developed root system will provide more energy and help it to overcome the winter months. Avoid over-fertilization, especially by not using a soil medium with additional nitrogen in the mix. Cuttings made in autumn frequently succumb to too much nitrogen, which expends the small plant's energy reserves by promoting active growth during the dormant season.

When the harvest moon is about to reign over the garden, get out your pruners and try taking some semi-hardwood cuttings. By next spring, you will very likely have new plants for either your own or another's pleasure. ♪

Barbara Selemon has been Plant Propagator for the Center for Urban Horticulture / Washington Park Arboretum for 15 years, specializing in the propagation of woody ornamentals.



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**The subspecies (ssp.)
and cultivars (cvs.)
of these genera are
good candidates for
semi-hardwood cuttings:**

Rhododendron

Pieris

Ilex

Garrya

Vaccinium

Berberis

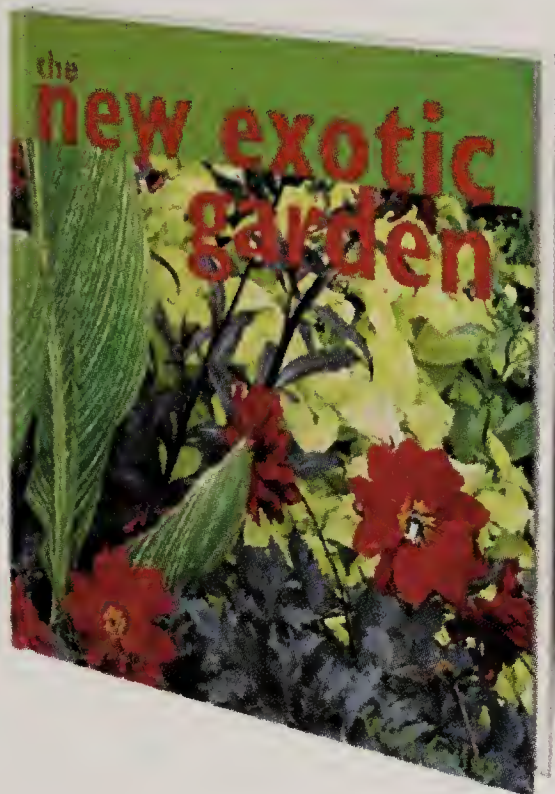
Taxus

Thuja

BOOK REVIEW

Tropicals for the Exotic Northwest Garden

BY DUANE DIETZ



In 1988, Miles Challis published a book called *The Exotic Garden* which was the basis for the Tropicallismo movement that has currently swept the temperate region looking for something new. The Challis book is the benchmark that others have aspired to exceed. *Hot Plants for Cool Climates* is not worthy of comparison. It is difficult to pan a book that has a scrumptious Little and Lewis garden for a cover. I am also pained that the amateurish photographs do a disservice to the dozen or so Pacific Northwest gardens and their hard-working gardeners included in this publication. The book is divided into two sections, the “verbiage” and the “encyclopedia of plants.” One of the text sections called “Creating the Look” is all of three short paragraphs in length. There is little thought given to design, soils or watering issues. The plant lists in the back are all botanic names and nearly 75 percent are not included within the encyclopedia. The authors also are clueless about plant choices.

One of their picks was *Nepenthes*, a carnivorous pitcher plant vine. I happened to see wonderful examples of *Nepenthes* growing in the Marie Selby Botanic Gardens conservatory in Tampa Bay, Florida! If it needs a greenhouse there, who in their right mind would recommend ever growing it in a temperate environment?

The *New Exotic Gardener*, on the other hand, is honest about its shortcomings. Will Giles quickly speeds through the Victorian Era experience with tropical plants before relating his own adventures on a half-acre of land in Norwich, England. He spends an entire chapter outlining color theory, another on plant forms and textures, and shows clear examples of plant combinations. The book is easy to read and quite informative in a fluffy way. The plant list is brief, but does include specific information about soils, watering, and sun/shade requirements. Simple diagrams outline propagation, cultivation and over-wintering



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techniques. While not an outstanding book, it is certainly one to recommend to friends. So, trowels up for *The New Exotic Garden*, and unfortunately, it's off to the compost pile for *Hot Plants for Cool Climates*. ☞

Hot Plants for Cool Climates: Gardening with Tropical Plants in Temperate Zones, by Susan Roth and Dennis Schrader (Houghton Mifflin, 2000).

The New Exotic Garden, by Will Giles (Mitchell Beazley, 2000).

Duane Dietz is a Seattle-area landscape architect and the founder of the Pacific Northwest Garden History Society. Contact him at ddietz@seanet.com.

Check it out!

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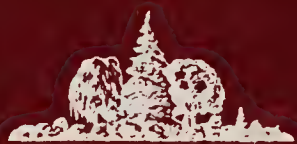

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